

1. (Currently amended) A method for producing immortalised antibody-secreting cells, comprising:

(a) providing a germline transgenic mouse having antibody-secreting cells capable of expressing one or more transgenes, wherein the antibody-secreting cells are in a non-immortalised state in the absence of a stimulus and ~~are capable of changing~~change to an immortalised state by means of the transgene or transgenes upon exposure of the cells to the stimulus;

(b) extracting the antibody-secreting cells from the mouse; and

(c) exposing the antibody-secreting cells to the stimulus, thereby immortalising the antibody-secreting cells by means of the transgene or transgenes.

2. (Original) A method for producing antibodies, comprising producing immortalised antibody-secreting cells by a method as defined in claim 1, and collecting antibodies from the cells,

3. (Currently amended) A method for preparing a clonal population of immortalised cells which produce a monoclonal antibody, comprising:

(a) providing a germline transgenic mouse having antibody-secreting cells capable of expressing one or more transgenes, wherein the antibody-secreting cells are in a non-immortalised state in the absence of a stimulus and ~~are capable of changing~~change to an immortalised state by means of the transgene or transgenes upon exposure of the cells to the stimulus;

(b) extracting the antibody-secreting cells from the mouse;

(c) exposing the antibody-secreting cells to the stimulus, thereby immortalising the antibody-secreting cells by means of the transgene or transgenes;

(d) selecting an immortalised antibody-secreting cell which produces the antibody, and

(e) preparing the clonal population of immortalised cells from the immortalised antibody-secreting cell.

4. (Previously presented) A method according to claim 1, wherein expression of a transgene in the antibody-secreting cells is under the control of an inducible promoter, and the stimulus is capable of regulating activity of the promoter and transgene expression.

5. (Original) A method according to claim 4, wherein the stimulus promotes promoter activity and transgene expression.

6. (Withdrawn) A method according to claim 4, wherein the stimulus inhibits promoter activity and transgene expression.

7. (Previously presented) A method according to claim 1, wherein a product of a transgene in the antibody-secreting cells promotes immortalisation in the presence of the stimulus, and does not promote immortalisation in the absence of the stimulus.

8. (Previously presented) A method according to claim 1, wherein the transgene is an oncogene.

9. (Withdrawn) A method according to claim 8, wherein the oncogene is a gene for the large T antigen.

10. (Withdrawn) A method according to claim 1, wherein the transgenic mouse is an immortomouse.

11. (Withdrawn) A method according to claim 1, wherein a product of a transgene in the antibody-secreting cells inhibits immortalisation in the absence of the stimulus, and does not inhibit immortalisation in the presence of the stimulus.

12. (Withdrawn) A method according to claim 11, wherein the transgene is a tumour suppressor gene.

13. (Withdrawn) A method according to claim 1, wherein a product of a transgene in the antibody-secreting cells inhibits a tumour suppressor function in the cells.

14. (Withdrawn) A method according to claim 13, wherein the transgene is mdm2.

15. (Withdrawn) A method according to claim 13, wherein the transgene comprises cre recombinase, the tumour suppressor function results from a tumour suppressor gene, and the tumour suppressor gene, or a functional part thereof, is flanked with loxp sites.

16. (Withdrawn) A method according to claim 13, wherein a product of the transgene comprises an antisense RNA or ribozyme RNA which is capable of inhibiting expression of a tumour suppressor gene.

17. (Withdrawn) A method according to claim 12, wherein the tumour suppressor gene comprises p53.

18. (Original) A method according to claim 8, wherein the oncogene comprises myc, abl, bcl-2, v-rel, ras, papillomavirus E6 protein, papillomavirus E7 protein, adenovirus E1A, PIM1, RhoH/TTF or PAX5.

19. (Previously presented) A method according to claim 1, wherein the transgenic mouse comprises antibody-secreting cells in which a tumour suppressor gene has been deleted.

20. (Previously presented) A method according to claim 1, wherein the method comprises the further step of immunising the transgenic mouse with an antigen before step (b).

21. (Previously presented) A method according to claim 20, further comprising selecting an antibody-secreting cell which produces an antibody which recognises the antigen.

22. (Previously presented) A method according to claim 3, wherein step (d) comprises fluorescence activated cell sorting.

23. (Currently amended) A method according to claim 1, wherein the transgenic mouse is not immunised.

24. (Withdrawn) A method according to claim 1, wherein the stimulus comprises a temperature change.

25. (Previously presented) A method according to claim 1, wherein the stimulus comprises a chemical stimulus.

26. (Previously presented) A method according to claim 1, wherein the antibody-secreting cells comprise B lymphocytes.

27. (Previously presented) A method according to claim 1, wherein the antibody is a humanised antibody.

28. (Previously presented) A method according to claim 1, comprising a further step of storing the antibody-secreting cells at a temperature of 0°C or below, after extracting the antibody-secreting cells from the mouse, and before or after exposing the antibody-secreting cells to the stimulus.

29. (Previously presented) A method for producing a monoclonal antibody, comprising producing a population of immortalised cells by a method as defined in claim 3, and producing the monoclonal antibody from the population of immortalised cells.

30. (Withdrawn) A clonal population of immortalised antibody-secreting cells obtained by a method as defined in claim 3.

31. (Withdrawn) A monoclonal antibody obtained by a method as defined in claim 29.

32. (Withdrawn) An isolated, immortalised antibody-secreting cell derived from a transgenic mouse, wherein the cell expresses one or more transgenes, the cell is capable of being maintained in an immortalised state by means of the transgene or transgenes in the presence of a stimulus, and the cell is capable of changing to a non-immortalised state in the absence of the stimulus.

33. (Withdrawn) An isolated clonal population of immortalised antibody-secreting cells which produce a monoclonal antibody, comprising a population of immortalised antibody-secreting cells as defined in claim 32.

34-35. (Canceled).

36. (Withdrawn)      A method according to claim 13, wherein the tumor suppressor function comprises p53.